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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,180	03/25/2004	Navdhish Gupta	1054.028	6823
22186	7590	06/09/2006	EXAMINER CHOI, WOO H	
MENDELSON AND ASSOCIATES, P.C. 1500 JOHN F. KENNEDY BLVD., SUITE 405 PHILADELPHIA, PA 19102			ART UNIT 2189	

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/809,180

Applicant(s)

GUPTA ET AL.

Examiner

Woo H. Choi

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 13-30 is/are rejected.
- 7) ☒ Claim(s) 2 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3 – 11 and 13 – 30 are rejected under 35 U.S.C. 102(e) as being anticipate by Li et al. (US Patent Application Publication No. 2005/0122982, hereinafter “Li”).

3. With respect to claims 1, 11, 21 and 22, Li discloses a scheduler (figure 2 and page 2, paragraph 14) for a plurality of packet storage devices, the scheduler comprising:

a memory device (202) adapted to store a look-up table (LUT) that maps an input address to a LUT output, wherein:

the input address (224, empty flags are used to select which queue number to output) corresponds to current status of one or more of the packet storage devices; and

the LUT output (figure 3, 310 or 314) identifies a next packet storage device to select for service and whether the next packet storage device has data available for service;

a latch (308, 358, etc.) adapted to store and forward the LUT output; and

an extractor adapted to receive the forwarded LUT output from the latch and to generate (1) a latch enable (LE) control signal (306) that enables the latch to forward the LUT output and

Art Unit: 2189

(2) a read enable (RE) control signal (315, alternative 314) that identifies which one or more packet storage devices are to be serviced.

4. With respect to claims 3 and 14, the extractor can be said to be in EXTRACT state when it is extracting data from the selected queue and is in IDLE state when it is not extracting. The clock signal 306 (LE control signal), which enable the latch to forward the LUT output, seems to be generated regularly regardless of what state the extractor is in including under states and conditions recited in the limitations (i.e., 306 is generated when the queues are empty and also when the queues are full and being serviced).

5. With respect to claims 4 and 14, by the definition of the states discussed above, state transition from IDLE to EXTRACT occurs when data become available and is being extracted and vice versa.

6. With respect to claims 5 and 15, see figure 2, 224 and figure 3, 318 – 322.

7. With respect to claims 6 and 16, the packet storage device has data available when it is not empty, i.e., more than zero.

8. With respect to claims 7, 8, 17 and 18, Li discloses, in page 2 paragraph 15, that once data has been sent out, the table is rotated. This requires indication of completion of service.

Art Unit: 2189

9. With respect to claims 9, 10, 19 and 20, the scheduling algorithm can be changed by populating the rotating table as desired. See page 2, paragraph 14.

10. With respect to claim 21, Li discloses a scheduler for a plurality of packet storage devices (figure 1, 148, 146, 144), wherein the scheduler comprises a look-up table (LUT) (120) that identifies a next packet storage device to select for service based on current status (114, 116, 118) of one or more of the packet storage devices.

11. With respect to claim 22, the scheduler further comprising:

a latch adapted to store and forward the identification of the next packet storage device to select for service (104 is adapted to store the number, that corresponds to the next queue to be selected, that is forwarded to 120) based on a latch enable (LE) control signal (102, 114 – 118); and

a finite state machine (FSM) (figure 1) adapted to (1) forward the identification of the next packet storage device to the plurality of packet storage devices and (2) generate the LE control signal, based on service status information from the packet storage devices.

12. With respect to claim 27, the current status of the one or more packet storage devices comprises an indication of whether each packet storage device has data available for service and an indication of which packet storage device is currently selected for service (page 1, paragraph 5).

Art Unit: 2189

13. With respect to claim 28, a packet storage device has data available for service when the packet storage device currently stores more than a specified threshold number of data packets (paragraph 5, a queue has data available when it is not empty).

14. With respect to claims 29 and 30, an existing LUT can be replaced with a new LUT in order to change a scheduling algorithm for the packet storage devices (look-up table is some thing that can be changed and changing the table content would alter the scheduling sequence/algorithm).

15. With respect to claims 23 – 26, see rejections of claims 3 – 8 above.

#### ***Allowable Subject Matter***

16. Claims 2 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

are allowed.

#### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (571) 272-4179. The examiner can normally be reached on M-F, 9:00-5:30.

Art Unit: 2189

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Woo H. Choi  
May 30, 2006